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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

B. Foulger, et al.

Serial No.: 09/889,639

Filed: December 4, 2001

For: FIRE DETECTION METHOD

Group Art Unit: 2881

Examiner: P. Gurzo

July 1, 2004

Attorney Docket No. 41577/261336

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Commissioner of Patents and Trademarks, Alexandria, VA 22313-1450, on July 1, 2004

Dean W. Krum  
Signature

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**RESPONSE AND  
PETITION FOR EXTENSION OF TIME**

Dear Sir:

This paper is submitted in response to the Office Action mailed March

1, 2004 in connection with the above-identified application.

## Response

### A. Introduction

Claims 1 and 17-22 remain pending in the application. Twice previously the Examiner has withdrawn initial rejections following his receipt of Applicants' responses. Rather than allowing the claims, however, in each instance he has issued a new, non-final rejection, now rejecting claims 1 and 17-19 under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 4,820,920 to Bather and claims 20-22 under section 103(a) as obvious over the combined disclosures of the Bather patent and U.S. Patent No. 5,653,539 to Rosengaus. Once again, Applicants believe the Examiner has failed to establish a *prima facie* basis for the initial rejection of claims 1 and 17-22 and request that the claims be allowed without further delay.

### B. The Rejections

#### *1. Independent Claim 1*

As currently drafted, independent claim 1 recites [1] a method for *detecting a heightened risk of the onset of fire* of [2] *an electrical component* by sampling the atmosphere around the [electrical] component using [3] an *ion mobility* spectrometer and

*detecting a change* in the ion mobility spectrum [4] *that is characteristic of overheating of the [electrical] component.*

Contrary to the Examiner's latest contentions, *none of features [1]-[4] is disclosed in the Bather patent.* Applicants accordingly request--yet again--that the Examiner's rejections be withdrawn and claims 1 and 17-22 be allowed.

a. Detecting a Heightened Risk of the Onset of Fire

According to the Examiner, because the Bather patent discloses detection of explosives, and because explosives frequently produce fires, the Bather patent somehow teaches detecting “a heightened risk of the onset of fire” as recited in claim 1. ***This conclusion is clearly incorrect.*** As described in detail in the Bather patent, the disclosed apparatus merely detects the ***presence*** of explosives--***not*** whether any explosives have a ***heightened risk of exploding or of such explosion producing a fire.*** Indeed, the Bather patent fails even to contemplate detecting whether an explosive is of increased risk of exploding, as the presence of such explosive is, by itself, sufficiently unacceptable to trigger an alarm.

b. An Electrical Component

Nor does the Bather patent address detection methods involving ***electrical components.*** Mentioned instead are detecting only “explosives” and “controlled substances” as well as unspecified “flammable or other hazardous substances.” The Examiner appears to concede this distinction, as ***nowhere*** in the Office Action does the Examiner even indicate--much less explain--where in the Bather patent reference to electrical components occurs.

c. An Ion Mobility Spectrometer

Notwithstanding his recognition that the Bather patent wholly fails to teach use of an ion mobility spectrometer, see Office Action at p. 2, the Examiner nonetheless contends such use would be obvious to one skilled in the art. ***Such contention also is incorrect***--particularly in the context of claim 1, which is ***not*** directed at detecting explosives or controlled substances. As Applicants have

previously noted for the Examiner, ion mobility spectrometry is known to be limited to detecting explosives and narcotics. By contrast, the present invention is based, in part, on the surprising finding that vapor emission from an electrical component occurs and can be detected by ion mobility spectrometry before actual onset of fire in the component.\*

d. Change Characteristic of Overheating of an Electrical Component

Clear from the Bather patent is that its apparatus detects changes, compared to reference spectra, characteristic of compounds contained in certain narcotics and chemicals used to make specified explosives. *Nowhere*, however, does the Bather patent disclose or suggest detecting changes characteristic of *overheating of anything*, much less *overheating of an electrical component*. Although the Examiner asserts that such disclosure occurs in the Abstract and at column 1, lines 24-38 of the Bather patent, this assertion too is simply erroneous.

Applicants accordingly believe that--for *multiple* reasons--the Examiner has again failed to establish even a *prima facie* basis for any rejection utilizing the Bather patent. Furthermore, as noted in the "Response and Petition for Extension of Time" submitted December 17, 2003, defects in the disclosures of patents such as the Bather patent are not cured by the disclosure of the Rosengaus patent. For at least the foregoing reasons, therefore, Applicants again request that claims 1 and 17-22 be allowed.

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\*If the Examiner yet again fails to allow the pending claims and persists in making this argument, Applicants request that the Examiner "cite a reference in support of his . . . position" as required by M.P.E.P. § 2144.03.

## 2. Claim 17

In rejecting claim 17 as obvious over the Bather patent, the Examiner asserted that the Bather patent “teaches the generation of an alarm signal indicative of any dangerous material.” See Office Action at p. 2. Without conceding the correctness of the Examiner’s assertion, Applicants note it is *wholly irrelevant* to claim 17, which relates to *indicating increased target gas or vapor emission* from an electrical component. Nowhere detailed in the Bather patent is any technique in which *increases* in target gas or vapor emissions is indicated. Thus, for at least this additional reason, claims 17, 19, and 21 should be allowed.

### **Petition for Extension of Time**

Pursuant to 37 C.F.R. § 1.136(a), Applicants petition the Commissioner for all extensions of time needed to respond to the Office Action. Enclosed is a check for \$110.00 for the petition fee. Applicants believe no other fee presently is due. However, if Applicants’ belief is mistaken, the Commissioner is authorized to debit Deposit Account No. 11-0855 for any additional fee due as a consequence of Applicants’ submission of this paper.

**Conclusion**

Applicants request that the Examiner allow claims 1 and 17-22 and that a patent containing these claims issue in due course.

Respectfully submitted,

OF COUNSEL:

Kilpatrick Stockton LLP  
1100 Peachtree Street  
Suite 2800  
Atlanta, Georgia 30309  
(404) 815-6528



Dean W. Russell  
Reg. No. 33,452  
Attorney for the Assignee